

5

of the preceding aspects, a blood vessel sizing device includes an adhesive marker configured for placement on the skin of a patient, wherein the marker defines a substantially circular shape and includes (i) a plurality of radiopaque substantially concentric circles and, and (ii) a plurality of different radiopaque symbols, wherein each of the plurality of different radiopaque symbols represents a diameter of one of the plurality of substantially concentric circles.

In accordance with a thirteenth aspect of the present disclosure, which can be used in combination with the twelfth aspect, the plurality of radiopaque symbols are at least one of (i) geometric shapes, and (ii) numbers.

In accordance with a fourteenth aspect of the present disclosure, which can be used in combination with any one or more of the preceding aspects, the diameters of the plurality of substantially concentric circles range from about 2 mm to about 20 mm.

In accordance with a fifteenth aspect of the present disclosure, which can be used in combination with any one or more of the preceding aspects, a blood vessel sizing method includes placing a marker having a plurality of radiopaque substantially concentric circles on the skin of a patient, imaging the blood vessel and the marker, and comparing the image of the blood vessel to the image of at least one of the plurality of radiopaque substantially concentric circles to determine a size of the blood vessel.

In accordance with a sixteenth aspect of the present disclosure, which can be used in combination with the fifteenth aspect, imaging the blood vessel and the marker includes using an angiogram.

In accordance with a seventeenth aspect of the present disclosure, which can be used in combination any one or more of the preceding aspects, comparing the imaged blood vessel to the imaged plurality of concentric circles to determine the size of the blood vessel includes measuring the imaged blood vessel and comparing the measured blood vessel to the imaged diameters of the plurality of radiopaque substantially concentric circles.

In accordance with an eighteenth aspect of the present disclosure, which can be used in combination any one or more of the preceding aspects, measuring the diameter of the imaged blood vessel includes using a mechanical instrument.

In accordance with a nineteenth aspect of the present disclosure, which can be used in combination any one or more of the preceding aspects, the marker includes a plurality of different radiopaque symbols, wherein each of the plurality of different radiopaque symbols represents a diameter of one of the plurality of substantially concentric circles.

In accordance with a twentieth aspect of the present disclosure, which can be used in combination any one or more of the preceding aspects, comparing the imaged blood vessel to the image of at least one of the plurality of concentric circles to determine the size of the blood vessel includes measuring the imaged blood vessel and comparing the measured blood vessel to the imaged diameters of the plurality of radiopaque substantially concentric circles and reading the symbols.

It should be understood that various changes and modifications to the presently preferred embodiments described herein will be apparent to those skilled in the art. Such changes and modifications can be made without departing from the spirit and scope of the present subject matter and without diminishing its intended advantages. It is therefore intended that such changes and modifications be covered by the appended claims.

We claim:

1. A blood vessel sizing device comprising:

a marker structure configured for placement on the skin of a patient, comprising:

a plurality of concentric circle shapes, each having a first thickness between an inside diameter and an outside

6

diameter comprising a radiopaque material such that the first thickness of a first concentric circle of the plurality of concentric circle shapes, when viewed in an X-ray image, is uniformly viewable, wherein the first thickness of a second concentric circle of the plurality of concentric circle shapes comprises a radiopaque material at one of the inside diameter and an outside diameter and a radiolucent material at the other of the inside diameter and the outside diameter such that a selected concentric circle shape has a second thickness, less than the first thickness, when viewed in an X-ray image; and

a plurality of distinct geometric shape symbols, each representing a diameter of a different one of the of the plurality of circle shapes, and further having a first thickness comprising a radiopaque material configured to be uniformly viewable when viewed in an X-ray image.

2. The blood vessel sizing device of claim 1, wherein the marker structure further comprises:
an adhesive for adhering the marker to the skin of the patient.

3. The blood vessel sizing device of claim 1, wherein the plurality of distinct geometric shape symbols comprise at least one of: a triangle, a circle, a square and a pentagon.

4. The blood vessel sizing device of claim 1, wherein the plurality of distinct geometric shape symbols are numbers.

5. The blood vessel sizing device of claim 1, wherein the diameters of the plurality of concentric circle shapes range from about 2 mm to about 20 mm.

6. The blood vessel sizing device of claim 1, wherein there are at least four concentric circle shapes, which have diameters of about 4 mm, 6 mm, 8 mm, and 10 mm, respectively.

7. The blood vessel sizing device of claim 1, wherein there are at least four concentric circle shapes, which have diameters of about 14 mm, 16 mm, 18 mm, and 20 mm, respectively.

8. The blood vessel sizing device of claim 1, wherein the shape the marker structure defines is substantially circular.

9. The blood vessel sizing device of claim 1, wherein the shape the marker structure defines is circular.

10. A blood vessel sizing method comprising:

placing a marker structure having a plurality of substantially concentric circle shapes on the skin of a patient, each of the plurality of concentric circle shapes having a first thickness between an inside diameter and an outside diameter, wherein the first thickness of a first concentric circle comprises a radiopaque material such that the thickness of a first concentric circle shape of the plurality of concentric circle shapes, when viewed in an X-ray image, is viewable and wherein the first thickness of a second concentric circle of the plurality of concentric circle shapes comprises a radiopaque material at the inside diameter and a radiolucent material at the outside diameter such that the selected concentric circle shape has a second thickness, less than the first thickness, when viewed in an X-ray image, the placed marker further comprising:

a plurality of distinct geometric shape symbols, each representing a diameter of a different concentric circle shape of the plurality of circle shapes, and further having a first thickness comprising a radiopaque material configured to be viewable when viewed in an X-ray image;

imaging the blood vessel and the marker structure using X-ray radiation, wherein the selected concentric circle